

of late years in the Silurian, Carboniferous, and Chalk rocks has amply demonstrated.

After the description of each coast-section, the authors deal in detail with the inland exposures, and collect together a mass of information which should prove extremely valuable when a zonal survey of Counties is undertaken. That this must come in the near future is evident by a recent attempt by Mr. Jukes-Browne himself to indicate the zones in the Chalk of Suffolk from fossils collected in pits. In the description of the Norfolk coast, Mr. Jukes-Browne establishes a new zone, the zone of *Ostrea lunata*, on the collections of Messrs. C. Reid and R. M. Brydone: the results obtained by the latter were published in 1900. It is comforting to be reminded that there is a certain amount of this interesting zone inland, as shown by the Well at Mundesley, since the northern shore-mass of *lunata* Chalk at Trimmingham is almost worn away.

Chapter xxi. is devoted to a sketch of the Upper Chalk of France, wisely inserted for comparison. Chapter xxii. (pp. 302-353), dealing with the microscopical characters of the Chalk, by Mr. Hill, is a summary, with additions, of his well-known papers on the subject. The author is indebted to Mr. F. Chapman (now of Melbourne) for determining the Foraminifera and Ostracoda (p. iv). A discussion of the chemical composition of the Chalk occupies Chapter xxiii. (pp. 354-360). The bathymetric conditions and the variations of the sea-bottom during the formation of the Upper Chalk occupy Chapter xxiv.; an account of the economic products, Chapter xxv. (pp. 379-402); of the physical features, Chapter xxvi. (pp. 402-424); and of the water-supply from the Chalk, Chapter xxvii. (pp. 425-446). One Appendix contains critical remarks on some of the fossils, and gives a list of all the known fossils up from the Upper Greensand (Selbornian) to the *O. lunata* zone, with careful indications of the zonal succession. Appendix II. gives a full Bibliography of publications relating to the rocks and fossils of the Upper Cretaceous Series of England.

We congratulate the Officers of the Geological Survey and Messrs. Jukes-Browne and Hill on having completed a very laborious and tedious task. We wish we could do the same for the printers. The paper seems better than usual, but there appears to be a difficulty in keeping the type clean; while in two copies of this work that we have seen the diagram at p. 206 is shorn of many of its letters. There are a few editorial slips—e. g., *Pecten serrat* at p. 12. Many of the woodcuts are too antiquated for current books; such new ones as that on p. 26 are indeed a long way "after Rowe"; and it is puzzling to distinguish in the picture at p. 91 the special layers of flint alluded to in the text.

Pictures of Bird-Life. By R. B. LODGE.
London: Bousfield & Co. 1903.

NOWHERE, perhaps, has the perfection of the camera and of photographic methods been more appreciated than among field-naturalists.

Within the last few years there has arisen, in consequence, quite a bewildering number of volumes, large and small, dealing with animal life, and especially birds, all illustrated by photographs. Many of these volumes have but little to recommend them: others constitute standing monuments of infinite patience and laborious research; among these Mr. Lodge's work will take front rank.

Mr. Lodge is not merely a photographer who finds birds conveniently useful subjects for the purpose of book-making; on the contrary, he is an ornithologist first and a photographer afterwards—albeit a skilled photographer, as the pages of this volume testify.

Considerations of space forbid anything more than the merest outline of the scope of this book or reference to anything more than a few isolated facts to show the accuracy and value of the observations which render the text such delightful reading. The Author commences with a chapter on bird-life in a suburban parish, and then goes on to describe such easily accessible observation-stations as the Lincolnshire mud-flats, the Norfolk broads, and the Farne Islands. Next follows an account of his more ambitious explorations in the Dutch marshes, the Spanish marismas, and the fjords and forests of Denmark. Observations of real scientific value occur plentifully throughout these pages. Less welcome, and equally numerous, are painful references to the work of extermination which is proceeding apace throughout these islands. This is due partly to the insensate greed of the collector, and partly to the gross ignorance of the gamekeeper, who, in addition, and in spite of laws for the prevention of cruelty to animals, is guilty of acts of barbarity which can only be described as devilish. It is high time that some more effective legislation was introduced for the suppression of these evils.

There are three chapters in this book which will prove very acceptable to many, since they deal with the question of the photographer's outfit and automatic photography by electricity—an extremely valuable aid in obtaining pictures of suspicious birds, otherwise unapproachable.

There are over two hundred illustrations in this book, some of which are of great beauty. The eight coloured plates are all unusually good. The book is well bound, well printed, and a work of which both author and publisher may feel proud.

MISCELLANEOUS.

Teleostome Phylogeny: a Correction.

I AM indebted to Mr. Boulenger for kindly calling my attention to a mistake in my paper on Teleostome phylogeny in the last number of the 'Annals.' On page 331, in the definition of the order Dipneusti the word "not" should be omitted, thus reading "Clavicle distinct from the cleithrum."—C. TATE REGAN.